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Dear Tania Lategan

RE: ESKOM EIA CONCERNS FOR THE PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE (DEA Ref. No: 12/12/20/944)

COMMENTS ON 2ND DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR): NUCLEAR 1 THYSPUNT

As we consider your reply to our submission to be inadequate and the second draft EIA even more so, we have chosen to resubmit our previous comments, with responses to your answers and a few additional comments.

The Supertubes Surfing Foundation (SSF) is a non-profit (Section 21 Company) organization dedicated to the preservation of the dunes and beaches of Jeffreys Bay. It has been operational since 1999 and initiated by the local surf clubs, J Bay Boardriders and JBU. The SSF is a partner of the Thyspunt Alliance, a coalition of community-based organizations that are opposing the location of the facility at Thyspunt. We object on the following grounds:

Comment 1:

Although this has not been discussed in the EIA and we have not been given the opportunity to debate the subject, our stance is that the government and Eskom should be investing heavily in renewable energy. We reject the assumption that the only choices for baseload power are either coal-fired or nuclear power stations. We believe that our country should make use of wind, solar, biogas and wave power and that these options haven't been explored adequately due to insufficient funding. It is frightening to note that between 1974 & 2007, 55% of all public research dollars (US 236 billion) were spent on Nuclear. This is six times more than the level of support to renewables. This trend is also apparent in South Africa. Between 2006/7 and 2009/10, the country allocated R7,2-billion for the development of the demonstration and fuel plants to prove the PBMR technology, while it allocated a further R1,73-billion in 2009/10 for the programme. This programme has now been shelved. Imagine if some of this money could have been channeled towards renewable research.

Your response (1):

The energy mix for South Africa is an important issue, it is being thoroughly investigated through the Integrated Resource Plan (2), which will hopefully be released by the Department of Energy before the end of this year. Documentation is available on the DOE website but for ease of reference the introductory document has been attached to this response. This describes the factors which will be considered when determining the energy mix of the country. Eskom aligns itself with the IRP process and its outcomes. In order to avoid a possible electricity crises resulting from initiating the projects too late Eskom has initiated the EIA's for Nuclear, Coal, pumped storage, Combined Cycle Gas Turbines



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and wind. The outcomes of the IRP will determine which of these projects will be allocated to Eskom and IPP's and which technologies will be suitable to meet South Africa's needs.

Eskom has recognized the need for clean electricity in South Africa, more recently the Department of Energy reflected this through the development of the Refit tariff and allocation of renewable technologies in the Integrated Resource Plan (1). This is an important step for South Africa since it provides the beginning of a regulatory framework for the implementation of renewable technologies. All technologies are required to meet the current and future demand for electricity. Eskom obtained Environmental Authorisation for a 100MW solar thermal demonstration plant in Upington and 100MW wind facility in Vredendal, unfortunately these were delayed due to funding constraints. However, recently Eskom has been successful in sourcing funding for both of these projects and are confident that the construction of the wind facility will begin within the next year. Eskom recently initiated a process to investigate biomass co-firing, this will be largely dependent on the sustainability and availability of the resource. Eskom has been carrying out research on several other renewable technologies which are not yet commercially available such as ocean pumped storage, wave and current technology. Eskom has also initiated studies into cleaner coal technologies and is demonstrating Underground Coal Gasification near Volksrus.

Our response (1):

Government policy leans towards large projects with great potential for corruption and towards protection of the Eskom monopoly. If Eskom were not a parastatal, but a private company, it would not pursue this most expensive and potentially dangerous method of generating electricity. If it truly wanted what was best for the country, it would be actively advocating renewables, which would provide both cheaper electricity and more jobs. We refer you to www.energyblueprint.info information supplied by Greenpeace, which states that, by 2030, South Africa can generate 50% of its electricity from renewables, creating 150 000 new jobs.

To say that, of the projected 40,000MW additional energy required, authorization was given for 200MW (0,5%) in renewables is an insult.

Response 1:

The development of the Integrated Resource Plan (IRP) 2010, which provides the South Africa government's policy for security of electricity supply for the next 20 years, was driven by the Department of Energy **and not by Eskom**. The IRP provides for the development of 17,8 GW (17,800 MW) of renewable power supply. The above-mentioned reply indicated two of the renewable power supply projects that Eskom is involved with. A significant portion of renewable energy required by the IRP will be supplied by Independent Power Producers (IPPs). Large infrastructure projects are necessary for the growth of the South African economy, they will not only ensure security of supply of electricity but the provision of sustainable employment.

Comment 2:

We believe that the public of Jeffreys Bay has been completely ignored during the current Draft Environmental Impact Assessment public participation process. No Public Meetings were held in Jeffreys Bay. We find this completely unacceptable and consider this a serious flaw in the public participation process.

Your response (2):

The public participation process in terms of the Nuclear-1 EIA has been designed to reach as many directly impacted Interested and Affected Parties (I&APs) as possible. During the Scoping Phase of the EIA public meetings were held in Jeffrey's Bay but these were relatively poorly attended. The majority of registered I&APs are located within the St. Francis Bay area and many of the public participation initiatives during the EIA Phase of the EIA have thus been centred around this area.

Public meetings have taken place in other areas such as Oyster Bay, Sea Vista and Port Elizabeth amongst others and a meeting with the Kouga (Jeffreys Bay) municipality was also undertaken.

Our response (2):

The public meetings during the Scoping Phase of the EIA were held in 2007 – 4 years ago and information at the time was vague. More recent public meetings would have alerted the public in Jeffreys Bay that they will be severely affected by e.g. the social, transport and marine impacts of a NPS at Thyspunt. The information shared during the meeting with Kouga municipality certainly was not made available to the public

Response 2:

Minutes of all meetings held during the Nuclear-1 public participation process are publicly available in the hardcopies, which are placed at various public libraries (e.g. the St. Francis and Humansdorp libraries) and on the Nuclear-1 EIA website. The minutes of this particular meeting with the Kouga Municipality is available under Appendix D5 at the following website
<http://projects.gibb.co.za/en-us/projects/eskomnuclear1reviseddrafteir.aspx>

Jeffrey's bay communities have attended the meetings held at Humandorp.

As indicated in the Revised Draft EIR and in the relevant specialist reports (e.g. the Marine Ecology Assessment and the Addendum on Surf Breaks), the broader regions will experience negligible impacts on marine ecology and Jeffreys Bay will experience no impacts on surf conditions.

Comment 3:

The environmental impact assessment contains many inaccuracies, such as the prevalent wind being Northwest and Vaalputs waste disposal site being closer to Thyspunt than to Bantamsklip. Vital information was omitted, such as the costs of upgrading roads from Port Elizabeth and the construction of transmission lines. Many figures referred to in the EIA do not appear therein.

Your response (3):

Your comments are noted.

The wind direction, as used in the Draft EIR and described in the Air Quality and Climate Assessment Report (Appendix E10) is correct, and is consistent with the wind roses for the area.

The transport distances were reviewed and found to be incorrect and will be rectified in the revised Transportation Assessment.

The draft Environmental Impact Report (EIR) is currently being revised and a revised report will be made available for public review and comment. Any inaccuracies and omission in the first draft of the report will be rectified in the revised draft.

Our response (3):

We repeat, your information on wind direction is incorrect.

The transport distances obviously impact on the Economic Report, so this should also be adjusted.

Response 3:

We repeat that the information regarding wind direction is correct.

Inconsistencies in the Transport Assessment did not have an impact on the calculations in the Economic Impact Assessment. Correct distances were used in the latter study.

Comment 4:

E22 Tourism assessment: Negative perceptions ignored on the basis that Koeberg has not affected tourism in Cape Town. This is an unacceptable extrapolation. Surf tourists are very aware of their environment and the SSF have a petition signed by thousands to the effect that they oppose the construction of a NPS near Jeffreys Bay. We find this report completely inadequate and unacceptable. The comment: *“Owing to budgetary cuts and time constraints, comprehensive surveys were excluded.”* All specialists’ studies should be as comprehensive as possible and budgetary constraints should not just be affecting those studies that have more bearing on the affected communities and less on engineering solutions of a Nuclear Power Station.

Your response (4):

Your comments are noted. Please see Appendix E37 for peer review reports of all specialist studies. No studies were shown to be fatally flawed.

Comment 5:

E18 Social impact assessment: Kouga municipal area, and Jeffreys Bay in particular, does not have enough water, housing, jobs, clinics or sanitation to serve the current population. An influx of any number of jobseekers will have a serious, long-term negative impact.

Your response (5):

The concern raised regarding local infrastructure is very relevant. Eskom will be required to engage with the local authorities prior to construction to determine and document responsibilities for this. Furthermore, Eskom will use desalination units to supply the power station with fresh water in order not to use the existing resources of the community. Eskom will also build a sewer plant on site for the same reasons. If the project is approved, Eskom intends proceeding with a study to determine the current level of skills of the unemployed in the area to plan for training of these people, as far as possible Eskom intends to use as much local labour as possible, this will be achieved by working with local communities and the voters roll. These initiatives along with others are intended to minimise the influx of job seekers.

Our response (5):

A desalination plant on the NPS site will not prevent thousands of jobseekers flocking to the area from using our water resources. The same goes for a sewer plant on site. It is impossible to restrict desperate people from moving into the area if they perceive a possibility of employment. By constantly trying to gain favour for the NPS with the public and government on the basis of job creation, you have already caused an influx.

Neither EIA factors in the costs of possible infrastructure upgrades being paid for of partly paid for by Eskom.

Please specify what “other initiatives” will be used to discourage people from moving to Kouga.

Response 5:

It is accepted that Eskom must bear some of the financial responsibility for the upgrade of infrastructure that would be necessary for an influx of people into the area (although Eskom cannot be held responsible for assisting municipalities financially for current infrastructure backlogs). Thus, one of the key recommendations of the Revised Draft EIR is that *“Eskom must enter into negotiations with local authorities and other relevant authorities well before the start of construction to identify how it can be ensured that municipal services are capable of providing sufficient capacity for the expected influx of people into the affected area. Agreement must be reached between Eskom and these bodies on the apportionment of financial responsibility for infrastructure upgrades.”*

It is important to note that it is the right of people to move to seek employment and that people therefore cannot be prevented from moving to the Kouga region to better their economic circumstances. However, it is recognised that migration of people into the region will impact on existing residents' access to services and therefore the following measures are recommended to mitigate the impacts of the influx of job seekers:

- A proactive, broad-based information campaign (including site notices) to clarify the number of job opportunities that will be available. The objective is to dispel rumours and unrealistic expectations and thereby seek to curtail the inflow/settlement of job seekers;
- Proactive engagement by the appointed contractor(s) with local authorities/SAPS/Community Policing Forums PFs to ensure that job seekers do not settle in the vicinity of Construction Villages or the construction terrain;
- Follow a transparent public participation process with role-players and I&APs; Make use of local labour and local suppliers of material for the construction as far as possible; and
- Monitor the situation after the occupation of the Construction Village, Staff Village and housing projects, and involve the relevant role-players in such process.

The design of the housing, community participation and labour relations policies and practices could be modelled on that of the Port of Ngqura. The Coega Development Corporation, which is recognised as one of the more successful organisations with regards to mitigating the impacts of an influx of job seekers, has indicated that it is willing to share its experiences and provide advice to Eskom on the design of appropriate policies and procedures.

Comment 6:

E25 Transportation assessment: The additional traffic volumes in the area will have a further negative impact on tourism. We are also concerned by the increased risk of traffic accidents due to more vehicles on the road from Port Elizabeth. Many local surfers commute between Jeffreys Bay and Port Elizabeth daily.

Your response (6):

Growth in economic active areas is unavoidable. The same applies to Jeffreys Bay area. Development and increase in traffic flows steadily increased through the years without the existence of the power station. Traffic is directly related to the number of inhabitants in an area. The following information was obtained from the Kouga Spatial Development Framework (December 2009):

- **847 houses was completed in Jeffrey's Bay during the year with a further 359 under construction**
- **According to the census of 2001, the population of Jeffrey's Bay was 16 178 people. The CDM survey of 2005 shown a population of 40 203. The population of Jeffrey's Bay is expected to be 62 434 in 2015. The totality of the Nuclear-1 project will at maximum be approximately 7000 in the entire area of Kouga (some of the 7000 jobs will be local people). It is estimated that approximately 2000 of these staff will reside in Jeffrey's Bay (out of the existing 62 434).**
- **The population in the entire Kouga municipality (2005) was estimated at 88 793**

Please note that these figures do not include the Nuclear-1 power station staff. There will of course be an additional increase in the traffic due to the construction activities. Traffic maximums will occur during the mornings and afternoons when construction staff goes to work (estimated at a maximum of 320 vehicles per hour). Eskom will use busses to reduce the number of individuals travelling to work on a daily basis. A revised transportation specialist report has been produced and will form part of this revised DEIR.

Our response (6):

We would argue that during the construction period of the proposed NPS, transport would not be directly related to the number of inhabitants in the area, since many of the construction vehicles transporting building materials would be making round trips, some types as many as 7,953 per year.

Even if you are able to minimize the influx to just two people for every one of the 7,000 jobs and fewer than half of those have a partner (and/or children) there could easily be an additional 20,000 people in the greater municipal area – equivalent to the projected growth of Jeffreys Bay over 10 years. Two thirds of these people would be unemployed or take jobs from the current residents, leaving them unemployed.

These 7,000 jobs are of course not available concurrently over the entire construction period, are temporary and will leave the Kouga municipality with an even greater burden after construction is completed.

Please note that our concern is not so much the 1,300 staff who would be permanently employed after completion of the proposed NPS. They would be able to pay rates and taxes which would hopefully contribute to upgrading of necessary infrastructure.

Response 6:

The Transportation Assessment specifically addresses the impact of additional traffic generated by the construction and staff transport, (home-work trips) and recommends mitigating interventions required. As stated, there will be a secondary increase in traffic volumes that can be attributed to the families of the staff / workers. This increase will predominantly be recreational, school and secondary employment trips. The growth of traffic related to this will not be evenly spread throughout the region, so it is impossible to calculate a general traffic growth. The traffic growth will be focussed predominantly in the vicinity of the new staff housing areas and separate Transport Impact Assessments will be undertaken to determine and mitigate these impacts. The extent of mitigation required can only be determined when the exact location of these areas is finalised.

Please note, with respect to construction traffic, that the Transport Impact Assessment has been substantively amended. The revised Transport specialist study therefore acknowledges that the Thyspunt site requires significant transport infrastructure upgrades. The R330 is now proposed to be used for light vehicle traffic and abnormal load transport, and sections will require upgrading for this purpose. The Oyster Bay Road is now proposed to be upgraded to a surfaced road to be used during the construction and operations phases for staff access, light vehicle traffic, heavy vehicle traffic and as an emergency evacuation route for areas such as Oyster Bay. DR1762, which links the R330 and Oyster Bay Road is now proposed to be surfaced to provide improved east-west connectivity. The Transport Impact Assessment will be made available for public comment with the Draft Revised EIR Version 2. The approximately number of jobs is an estimate of the employment at the peak of construction i.e. in approximately the sixth year of the nine year construction period. Seven thousand people would not be employed throughout the construction period.

As stated above the influx of people into the area will need to be carefully managed and additional services and infrastructure will be required. Eskom, local and provincial authorities will need to plan for the appropriately both financially and logistically.

Comment 7:

E15 Marine impact assessment: We are vehemently opposed to the discharge of 6,37 million tons of spoil into the ocean at any rate or with any mitigating measures. We believe that the sediment and the resulting turbidity would have a negative impact on the marine life and on the squid in particular. As many local surfers are also involved in the squid industry, this would affect their income and probably lead to job losses. It is inconceivable to us how, in a country with high unemployment rates, a very lucrative, 6,000-job industry can be put at risk.

Your response (7):

Your comments are noted. The Marine Assessment specialist found that the temporal and spatial limitations of the impacts associated with the disposal of spoil on the chokka squid at Thyspunt will have limited impact on the overall squid stock, when taken within the context of the extensive area over which the species spawns.

Our response (7):

According to SASMIA (the South African Squid Management Industry Association), between 28 and 37% of all squid catches in the squid industry occur within 10 nautical miles East and West of the proposed NPS. The construction of the cooling water uptake and release pipes, the disposal of 6,3 million cubic metres of spoil on the ocean floor and resulting increase in turbidity from and (sic) average of 3mg/l to 26mg/l will combine to do irreversible damage to thousands of square metres of prime squid breeding grounds. Although it is true that squid is found along almost the entire SA coastline, the area around Thyspunt is clearly very concentrated.

Response 7:

The figure of 28 to 37% catches (previously around 30%) quoted by SASMIA appears to have been calculated using only four selected vessels – a gross under-representation of the chokka squid fleet. Data from the commercial database of the Department of Agriculture Forestry and Fisheries for the same area provided to the marine specialist team show that 14.7% of total squid catches are taken in the **wider area** (two quarter degree squares of approximately 22 x 27 km each) around the Thyspunt site – itself a much larger area what will in fact be impacted in the immediate vicinity of the proposed power station. The 30% figure used by SASMIA is therefore not supported by independent information on the total chokka squid fishery provided by the DAFF and its advisory body, the Squid Working Group, which is .

The total area that will be affected by a temperature increase of 3°C or more as a result of the release of warmed cooling water will be less than 1km² in the inshore area. In the current revision of the Marine Ecology Assessment (Appendix E15 of the Revised Draft EIR) the area potentially lost to the fishery (based on the commercial info provided by DAFF) is presented. While still under review, this figure ranges from 2.86% (worst-case scenario) to 2.53% (least-case scenario) to the fishery in the **local area** under question, or between 0.42% and 0.37% for the fishery as a whole.

The Marine Ecology Assessment bases its assessment of the impacts on squid on all potential sources of impact, including the marine exclusion zone, the release of warmed cooling water, the increase in turbidity and the disposal of spoil on the seafloor. The recommendations of this report are that spoil must be released at a disposal site deeper than the relatively shallow spawning grounds of chokka squid, which extend to a depth of approximately 50 m. Thus, release of spoil will take place at a depth of around 80 m, up to 6 km from shore. The Marine Ecology Assessment accordingly found, based on these release depths, that the maximum suspended sediment concentration (based on a medium discharge rate of 2.06 m³/s) is not expected to reach levels above the critical 80 mg/l (above which definite impacts can be expected) near the water surface at any time during or after spoil disposal. Furthermore the impacts will be confined to less than 1.4km² near the seafloor. Hence it is a key recommendation of the Environmental Impact Report that a medium discharge rate must be used and not a high discharge rate, since high discharge rate would result in unacceptably high turbidity that could impact on squid. In addition, the turbidity levels will be temporally limited outside the actual disposal site, occurring for a maximum of two days throughout the entire disposal period. Therefore, the impacts of increased turbidity on chokka squid are predicted to be very limited.

Comment 8:

Our comment (8) (sic):

E2 Dune geomorphology: We object to the building of roads across a mobile, soft dune system which behaves in unpredictable ways. We believe that this will damage the unique ecosystem and biodiversity of the area and therefore contravene the Biodiversity act of NEMA.

Your response (8) (sic):

Your comments are noted. The impact of the Nuclear Power Station on the mobile dune system has been assessed in the Dune Geomorphology Assessment (Appendix E2 of the Draft EIR) and the impacts are described in sections 5.3 and 6 of the report in more detail. It is recommended, irrespective of which site is chosen, that a team of specialists (including the botanical, wetlands, vertebrate and invertebrate fauna, heritage and visual specialists) must determine the detailed positioning of infrastructure on site prior to detailed design of the power station and associated infrastructure.

Our response:

Our concern referred to in this comment is not with the flora and fauna of the area, but with the building of roads to carry radioactive waste across a headland bypass dune system, which behaves in unpredictable ways, such as recently demonstrated by the washing away of the Sand River bridge (twice).

Response 8:

The issue of radioactive waste transport across the dune system was not identified as an issue of concern in your initial comment.

Waste transport will be carried out according to the appropriate provisions of the IAEA Regulations for the Safe Transport of Radioactive Material, subject to a graded approach. The objective of the Regulations is to protect persons, property, and the environment from the effects of radiation during the transport of radioactive material. In terms of the Regulations, the transport process is subject to radiation protection, emergency response, quality assurance, and compliance assurance programmes.

Appendix E30 assessed the risk of debris flow within the mobile dune system in detail and found that the a number of conditions necessary for the occurrence of debris flow do not exist within the dunes, primarily because the slopes of the dunes are not steep enough. The frequent flooding damage that has occurred to the road overpass over the Sand River can be mitigated by appropriate engineering design to cater for larger flood events. The revised Transport Assessment recommended that a Stormwater Assessment Plan be undertaken to evaluate the future flooding probability of the river. The design specification for the upgrade of the bridge should be reviewed in accordance with the results of the Stormwater Assessment Plan to ensure that the bridge is capable of accommodating a higher storm probability.

There are two route options for the transport of waste from the facility, the primary route being via the upgraded Oyster Bay road and the secondary route option via the R330. This allows for an alternative transport route should one become incapacitated in any way.

The current frequency of transport of LLW and ILW to Vaalputs is 6 times and 32 times per year, respectively, given that 120 metal LLW and five concrete ILW containers can be transported per shipment. This equates to a transport frequency of a maximum of one every week and a half. Similar frequencies will apply to Nuclear-1. Safe temporary storage space will be provided on the nuclear power station site for Low Level Waste (LLW) and Intermediate Level Waste (ILW). In the event of a road washing away, the power station would therefore have sufficient capacity to store LLW and ILW on site until such time as roads have been repaired.

LLW and ILQW will be transported in sealed drums (metal drums and concrete drums, respectively) that prevent the escape of radiation into the environment. This is an internationally acceptable practice that will be undertaken in terms of the conditions of the National Nuclear Regulator and the IAEA

Regulations for the Safe Transport of Radioactive Material, In terms of the Regulations, the transport process is subject to radiation protection, emergency response, quality assurance and compliance assurance programmes. Such waste transport to Vaalputs has taken continued to take place from Koeberg Nuclear Power Station without incident for several decades. The drums are transported in a normal road-going heavy delivery vehicle.

ADDITIONAL COMMENTS FROM INDEPENDENT NUCLEAR SPECIALIST

Agreed - the key factor in the safety of transport in accordance with IAEA regulations is that safety is built into the transport package (provided it is an approved design) and not specifically dependent on the transport route - as such transport packages are engineered to be deterministically safe for a range of potential transport incidents and consequences.

Comment 9:

E12 Wetlands: We live in a water-scarce area and having just experienced the worst drought in 132 years, we object to any disturbance of the Langefonteinvelei wetlands on the Thyspunt site.

Your response (9):

Your comments are noted. The Wetlands will be avoided, potential indirect impacts resulting during construction are being thoroughly investigated (continuous monitoring and assessment over the past 18 months by independent specialists) and will ensure that the wetlands are not impacted.

Our response (9):

Why then does Appendix E12 state:

“The zone of dewatering (0,1 m drawdown) could extend to a maximum of 1,8 km from the footprint boundary when dewatering the entire (approximately 27 ha) footprint. The dewatering would intersect flows in the mobile dune, affecting both wetlands in the Oyster Bay dunefield and the Langefonteinvelei itself. “

Response 9:

The above-mentioned text must be read in context of the entire report. Modelling of the impacts of groundwater drawdown was undertaken for a number of scenarios, including one scenario where dewatering would over the entire 27 ha footprint. This is not the only scenario that was assessed. As indicated by the Freshwater Ecology Assessment (Appendix E12 of the Revised Draft EIR, extensive groundwater and wetland monitoring took place during 2011 and the results of this monitoring confirmed that “that the southern portion of the Langefonteinvelei, and the western sections of both the southern and the northern portions of the wetland are perched above the groundwater table of the Algoa Aquifer¹, rather than being linked directly to it. Drawdown caused by abstraction or dewatering extending to below these parts of the wetland is therefore unlikely to have any effect on wetland hydrology or hydroperiod”.

Furthermore, it is recommended in this specialist report that a hydrological cut-off wall must be implemented around the power station excavation to prevent the drawdown of the water table far beyond the excavation. The comparative results of the implementation of such a cut-off wall are shown in Figure 4.7A (without a cut-off wall) and 4.7B (with a cut-off wall). Figure 4.7A shows the unmitigated impacts, indicating that groundwater drawdown would extend close to the western boundary of the Langefonteinvelei wetland. Figure 4.7B shows the mitigated impacts, where groundwater drawdown would extend only in a westerly direction but would be restricted to the excavation and would not extend in an easterly direction toward the Langefonteinvelei wetland.

¹ The aquifer immediately below the recommended power station footprint from where drawdown would take place

Our comment (10):

Minutes: We strongly object to the fact that the minutes of various recent meetings, such as the one held at the St. Francis Links on 25 May 2010, were only available nearly a month afterwards. We believe that the late publication of minutes is purposely frustrating our efforts to present our response to the Draft EIA. We therefore reserve our right to challenge the procedural fairness of this EIA process on the grounds that crucial and important information is supplied late and these actions do not allow us sufficient time to include the information which was presented at the meetings in our final comments.

Your response (10):

Your comments are noted. Interested and Affected Parties were given 14 days to comment on draft minutes. As previously stated you will be afforded with additional time to submit comments when the Revised Draft EIR is made available for public review.

Our response (10):

Our concern is not with the 14 days afforded to comment on the minutes, but the fact that the minutes were not made available sooner after various meetings. This is still a problem, eg. Minutes for the meeting held on 31 May 2011 were only sent out on 21 June 2011.

Response 10:

As you know, a series of five meetings was held around the Thyspunt site in the period 29 May to 2 June 2011 (one meeting per day). This included meetings in Oyster Bay, St. Francis, Sea Vista and Humansdorp. The same members of the EIA team presented at all these meetings. As such, although it was aimed to complete these minutes in the shortest possible time frame, it was not possible to transcribe the recordings of all these meetings and for quality control of the transcriptions to take place in a shorter time. GIBB was not prepared to make the draft minutes available without quality control (which had to be performed by two key resources who presented at these meetings), especially considering the fact that some interested and affected parties had complained about the quality of previous minutes.

New comments following publication of the Second Draft Environmental Impact Assessment and subsequent public meetings and open days

Comment 11:

1. We object to the fact that you have not agreed to have Key Focus Group Meetings with anyone but the Squid Industry and a dissident KhoiSan group. We consider this "Second Revised" DEIR to be a new document and as such require your specialists to be available to explain their findings to their peers if necessary.

Response 11:

Please provide a motivation for your objection to the involvement of SASMIA, the Gamtkwa KhoiSan Council and the 1st Nation. SASMIA is considered to be a key interested and affected party in the St. Francis region due to the importance of the squid industry in the area as a source of employment. The Gamtkwa KhoiSan Council and 1st Nation groups are considered as a key interested parties due to their claim that members of these groups have descent from Khoi and San people and the presence of KhoiSan archaeological sites on the Thyspunt site. It is the responsibility of the EAP objectively and independently consider all voices and to consult as broadly as possible.

A Key Stakeholder Workshop (with selected specialist being present) is under consideration after the release of the Draft EIR Version 1 in 2012. However, it is not common practice to have specialists

present in detail on each of their studies to the public. Comments from peers are encouraged and we ask that they are submitted so that the relevant specialist can respond to them. Where specific issues have been raised such as the concerns related to squid, heritage and debris flow specialist workshops have been held to facilitate discussion between specialists.

Comment 12:

2. We object to the fact that the technology for the proposed NPS has still not been identified and therefore the emergency planning zones cannot be specified by the National Nuclear Regulator.

Response 12:

The technology **has been decided** – nuclear power station, pressurized water reactor technology (reference Nuclear Energy Policy of South Africa). **The vendor**, and hence the specific design of PWR has not yet been decided. As indicated in the EIR, the assessment of the impacts of the proposed power station is based on a Consistent Dataset (Appendix C of the Revised Draft EIR), which represents a worst case scenario of potential inputs and outputs from a Generation III nuclear power station operating under normal conditions. This dataset has been based on the commercially available nuclear power station designs currently available.

Comment 13:

3. We object to the fact that the National Nuclear Regulator, according to them, has to date not been approached by Eskom.

Response 13:

Please provide substantiation for your statement that the National Nuclear Regulator (NNR) has not been approached by Eskom. Eskom has engaged with the NNR on a regular basis, although the official application for a nuclear license has not yet been submitted. The license application can only be submitted after the vendor is known and detailed designs and proposed operational data on the proposed power station are available. .

Comment 14:

4. We object to the fact that Eskom is continuing to purchase land in the area as if the project has already been approved. This has the effect of leading the public to believe that opposing the project would be a futile exercise and putting pressure on the government to give a positive Record of Decision because of the amount of money which has already been spent.

Response 14:

Eskom is buying land around the Thyspunt site at its own risk, pending the outcome of the EIA process. There is nothing in law that prevents Eskom from acquiring such land. In terms of NEMA, an applicant is prohibited from commencing with construction prior to receiving an authorisation. The development of a nuclear power station is dependent on long-term planning, which is why the potential sites for nuclear power stations were acquired as many as 20 years ago. It would indeed be unwise for Eskom to wait to the proverbial “last minute” before it bought the land.

Eskom’s acquisition of additional land around Thyspunt must also be viewed in context of the recommendations of the Freshwater Ecology Assessment (Appendix E12 of the Revised Draft EIR) that wetlands that fall outside the current Eskom owned land must also be secured for inclusion into a de facto nature reserve. The acquisition of these wetlands for conservation is regarded as one of the key “offset” mitigation measures at Thyspunt.

Comment 15:

5. We object to weightings given to various specialist reports in order to ensure that Thyspunt is declared the preferred site whilst being the most environmentally sensitive.

Response 15:

Your objection is noted. Please provide substantiation for your objection.

Comment 15:

6. We object to the fact that Eskom have completely ignored the South African Heritage Resource Agency (SAHRA)'s input on this proposed project.

Response 16:

A sensitivity analysis of each of the alternative nuclear power station sites was undertaken, based on the findings of the relevant specialists and their identification of sensitive areas on the sites. These sensitive areas have been overlapped to produce a composite sensitivity map and hence indicate an area that would affect the least sensitive features on the sites. The recommended position of the power station on each of the alternative sites, as with Thyspunt, is in the area of lowest environmental sensitivity. In the case of Thyspunt, the recommended position of the power station avoids sensitive environmental features such as the concentration of heritage sites along the western coastline, the mobile dunes in the northern portion of the site and the wetlands in the northern and eastern portions of the site. Thus, although the larger Eskom property as a whole contains many sensitive elements, the recommended position of the power station ensures that potential impacts on these features is either avoided or minimised.

Comment 17:

7. We object to European Utility Requirements being used to define emergency planning zones. These standards are not recognized by the International Atomic Energy Association not by the National Nuclear Regulator.

Response 17:

at the design that is adopted has minimal impact on the man and environment. This has been developed by utilities who will, in any case, have their design studied and endorsed by the relevant regulatory body. If the final design does not conform to the assertions made, the design will not be accepted and might have to be modified accordingly until it conforms to these requirements. Thus, the key emphasis of this requirement is to minimise the impact on man and environment. Eskom has chosen the EUR as this specification is sound and robust. It also allows for alignment with the international nuclear community. The Emergency Plan boundary allow for minimal restrictions around the site, while also providing for safer designs.

Please note that the Emergency Plan radii are defined by source terms that the plants are designed for, together with the potential accident scenarios modelled. Over the plant life several modifications are made to the plant, taking into account various experiences and risk study outputs. These allow for the reduction of public risk and may also inform the reduction of Emergency Plan radii. The new plant designs have taken into account the lessons learnt from the Operating Experience of plants in operation. These improvements have been incorporated on designs, and will also be reviewed by the NNR for soundness.

Comment 18:

Finally, as the Supertubes Surfing Foundation, we believe that the Thyspunt area is of immeasurable value to the human race and the planet as a whole. It should be declared a UNESCO World Heritage Site and preserved for future generations.

Response 18:

Your opinion is noted.

A handwritten signature in black ink, consisting of a large, stylized 'S' followed by a smaller 'F' and a long horizontal stroke.

Yours faithfully
for GIBB (Pty) Ltd

Nuclear-1 EIA Team

